OUTCOMES OF STAGED TUBULARIZED AUTO-GRAFT REPAIR(STAG) FOR PROXIMAL HYPOSPADIAS: EXPERIENCE OF A TERTIARY PEDIATRIC SURGERY CENTER IN BANGLADESH

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INTRODUCTION

- PROXIMAL HYPOSPADIAS REPRESENTS ONE OF THE MOST TECHNICALLY DEMANDING CHALLENGES IN PEDIATRIC UROLOGY DUE TO ITS COMPLEX ANATOMY, SEVERE VENTRAL CURVATURE, AND HIGH POSTOPERATIVE COMPLICATION RATES.
- IN RECENT YEARS, THE STAGED TUBULARIZED AUTOGRAFT (STAG) REPAIR, INTRODUCED AND REFINED BY SNODGRASS AND COLLEAGUES, HAS GAINED RECOGNITION AS A RELIABLE MODIFICATION OF THE NICOLLE–BRACKA APPROACH [1].
- BASED ON THE ENCOURAGING RESULTS, THE STAG PROCEDURE WAS ADOPTED AT OUR CENTER FOR THE MANAGEMENT OF PRIMARY PROXIMAL HYPOSPADIAS, WITH ALL SURGERIES PERFORMED BY A SINGLE SURGEON TO ENSURE CONSISTENCY.

METHODS

- A RETROSPECTIVE ANALYSIS WAS CONDUCTED BETWEEN JANUARY 2022 AND DECEMBER 2024, INCLUDING INDEX CASES WITH PROXIMAL HYPOSPADIAS WITH SEVERE CHORDEE.
- STAGE 1 INVOLVED CHORDEE CORRECTION, MOBILIZATION OF PROXIMAL URETHRA UP TO THE BULBAR PART, GRAFTING WITH PREPUTIAL SKIN, AND WIDE GLANS WING WITH WIDE GRAFT.
- STAGE 2 INVOLVED TUBULARIZATION AFTER A MINIMUM INTERVAL OF 6 MONTHS AND COMPLICATIONS AS WELL AS OUTCOMES UP TO 6 MONTHS WERE ANALYZED.

RESULTS

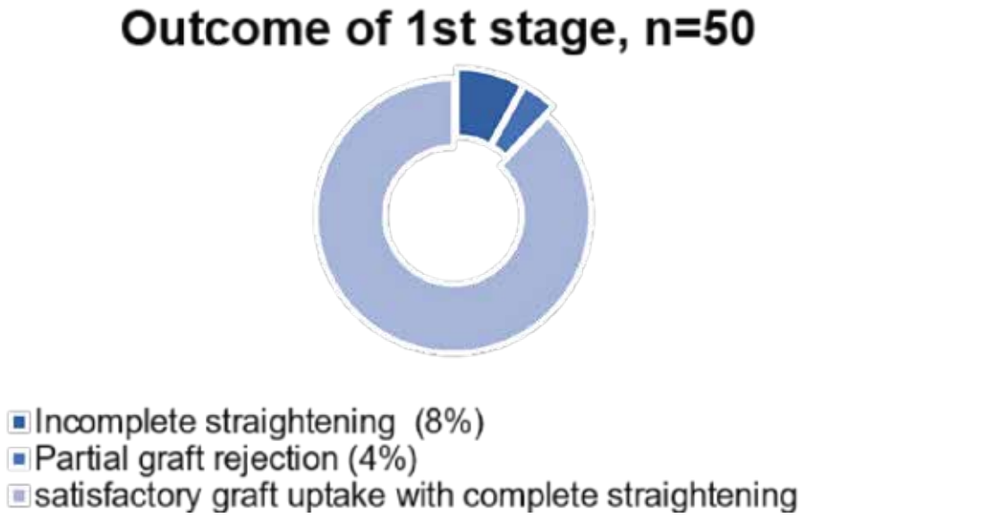
- A TOTAL OF 50 PATIENTS WITH PROXIMAL HYPOSPADIAS WERE INCLUDED IN THE STUDY, COMPRISING PENOSCROTAL (82%), SCROTAL (12%), AND PERINEAL (6%) TYPES.

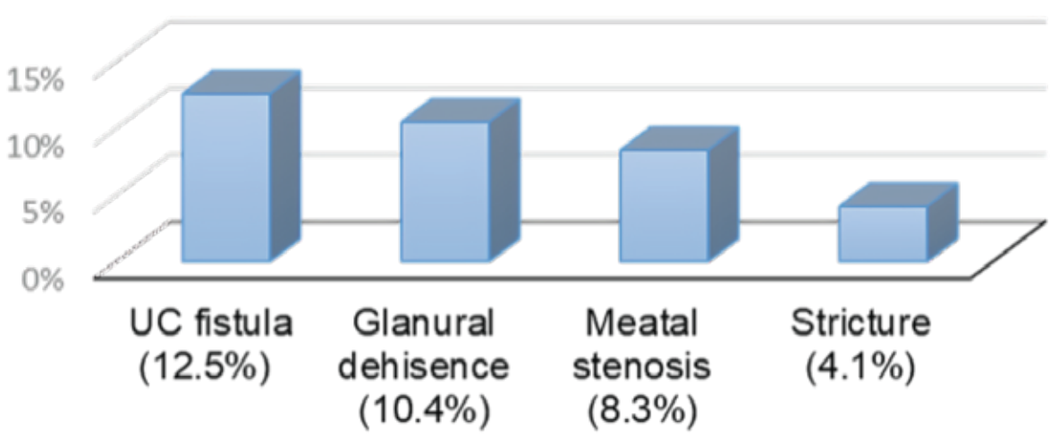
STAGE 1:

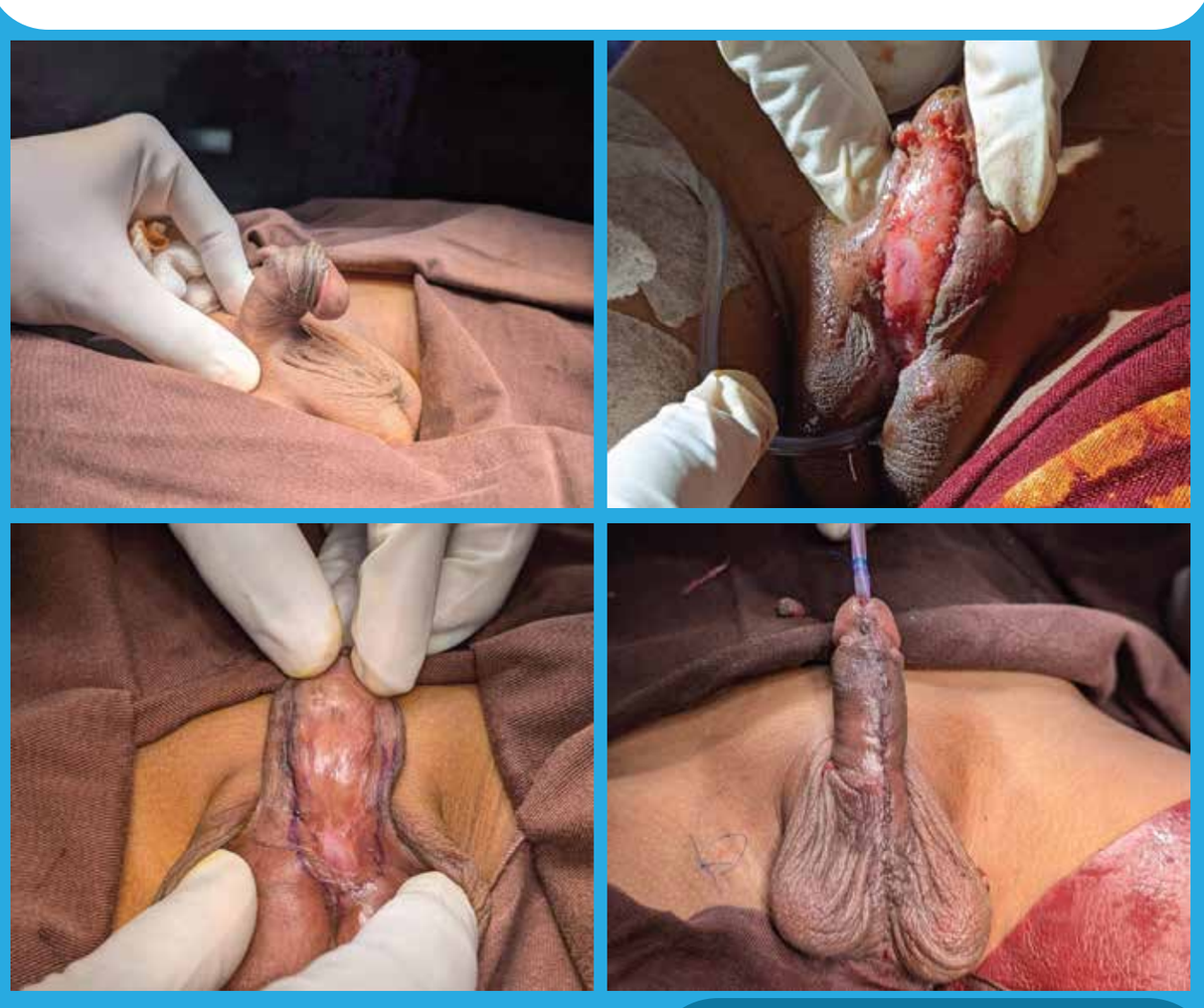
- MEDIAN AGE: 5 YEARS
- COMPLETE PENILE STRAIGHTENING: 92%
- PARTIAL GRAFT REJECTION: 4%

STAGE 2:

- PERFORMED AFTER MEAN INTERVAL OF 9 MONTHS
- PATIENTS INCLUDED: 48 (AFTER EXCLUDING GRAFT REJECTION)
- COMPLICATIONS:
  - URETHROCUTANEOUS FISTULA – 12.5%
  - GLANS DEHISCENCE – 10.4%
  - MEATAL STENOSIS – 8.3%
  - URETHRAL STRICTURE – 4.1%







CONCLUSION

- ADEQUATE URETHRAL MOBILIZATION, USE OF HEALTHY GRAFTS, AND PRECISE TECHNIQUE ARE CRUCIAL FOR SUCCESS.
- ALTHOUGH, LONG-TERM FOLLOW-UP WAS NOT CONDUCTED, OUR EXPERIENCE SUGGESTS THAT THIS APPROACH ENHANCES PENILE LENGTH, IMPROVES URETHRAL RECONSTRUCTION, AND FACILITATES BETTER PENOSCROTAL ANGLE FORMATION.
- REGULAR PRACTICE OF THIS PROCEDURE IS RECOMMENDED TO MAINTAIN PROFICIENCY AND OPTIMIZE RESULTS.

REFERENCE

1. SNODGRASS, W. AND BUSH, N., 2017. STAGED TUBULARIZED AUTOGRAFT REPAIR FOR PRIMARY PROXIMAL HYPOSPADIAS WITH 30-DEGREE OR GREATER VENTRAL CURVATURE. JOURNAL OF UROLOGY, 198(3), PP.680–686. DOI:10.1016/J.JURO.2017.04.019.

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